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# Information Item

## *Educational Policy and Programs Committee*

## Methodology of the Commission's Regional Higher Education Enrollment Demand Study

This prospectus describes the process and methodology for deriving valid regional enrollment demand estimates for higher education by 11 geographic planning regions for the period, 2002 to 2010. The prospectus further provides examples of the various types of regional participation rates that staff believes to be the foundation of regional enrollment demand modeling.

An underlying tenet of the study is the need to examine and understand those regionalized demographics, economies, labor and industrial markets, and local land-use policies which influence enrollment demand. In addition, at this juncture in the State's assessment of how best to serve the anticipated new demands on its systems of higher education, such a study must be guided by an interest to promote cost-effective institutional arrangements that best maximize student choice and access at the regional level while also furthering broad statewide undergraduate goals and purposes.

The study, which will compliment and build on the Commission's statewide forecast of undergraduate demand and institutional capacity contained in *Providing for Progress: California Higher Education Enrollment Demand and Resources for the 21st Century* (CPEC, 2000), is being developed in consultation with California's systems of higher education and is slated for completion in June 2001.

*Presenter*: Stacy Wilson.

# Methodology of the Commission's Regional Higher Education Enrollment Demand Study

**Introduction**

At the Commission's August 2000 meeting, the Executive Director expressed the intent of staff to undertake an undergraduate enrollment demand study by 11 geographic planning regions for the period 2000 to 2010. The regional study is intended to compliment and build on the Commission's statewide forecast of undergraduate demand and institutional capacity contained in *Providing for Progress: California Higher Education Enrollment Demand and Resources into the 21st Century* (CPEC, 2000).

The Executive Director noted that no other state-level or regional planning agency has attempted to derive comprehensive enrollment projections on a regional basis for public colleges and universities. Such a study is deemed warranted because California's regionalized demographics, economies, labor and industrial markets, and local land-use policies influence enrollment demand. More specifically, the central purpose of the Commission's regional study is to demonstrate a planning paradigm that can be used reliably to:

1. Estimate and appraise the magnitude of undergraduate demand and institutional capacity on a regional basis;

2. More clearly define the limitations and opportunities of expanding the State's higher education enterprise regionally to accommodate that demand;

3. Address key regional policy issues raised by various educational constituency groups and legislative entities; and

4. Compile useful regional demographic, socioeconomic and labor market information that could be used by institutions to support their local regional planning efforts.

Following the August Commission meeting, staff formed a regional planning advisory committee and held several meetings. The present agenda item describes the proposed methodology of the study that was developed through extensive consultation. Also included in this report are data examples highlighting the various types of regional participation rates that staff believes to be the foundation of regional enrollment demand modeling. It is anticipated that the undergraduate demand projections for each public postsecondary system will be developed and finalized by June 2001.

After completion of the study, staff intends to consult with the Association of Independent California Colleges and Universities (AICCU) to discuss the feasibility of replicating the study for California's significant independent higher education sector.

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**A paradigm for regional enrollment demand modeling**

In *Providing for Progress* the Commission concluded (1) that the State would need to prepare for approximately 714,000 additional students at its public colleges and universities by year 2010, (2) that over 78,000 additional students will likely seek access to one of the 75 degree-granting institutions affiliated with the Association of Independent California Colleges and Universities, (3) that without building new public higher education facilities the State will be unable to accommodate all of the anticipated increases in student demand, and (4) that California will need to seek taxpayer approval of general obligation bonds to help finance an estimated annual capital outlay budget of about $1.5 billion for each of the next ten years to maintain and expand the State's higher education enterprise to meet enrollment growth.

The Commission's student demand and institutional capacity analyses have proven quite reliable and helpful to planners and public officials in considering policy options and alternatives aimed at enhancing student access. There are, however, important aspects of enrollment demand that also must be understood and examined on a regional basis because such factors contribute to variation in undergraduate enrollment patterns. For instance, regional partnerships that have been established between higher education and various k-12 school districts, business entities, and community-based organizations to improve academic achievement are likely to have differential outcome effects, depending on the scope and breadth of the partnership, the socioeconomic makeup of the region, and the cognitive attributes of the targeted population of student learners.

In addition, with respect to the availability of institutional capacity within selected regions, there may be some institutions that have, *technically speaking*, the capacity to enroll substantially more entering freshmen, based on the State's capacity space standards. However, some of those institutions may be unable to do so, perhaps either because they are currently land-locked, or perhaps because their long-range development plans must limit growth because of environmental protection concerns (e.g. water resource limitations, traffic-flow impediments).

Given the significant population growth that is expected to occur in the state over the next ten years, it is not surprising that regional planning has become a critical issue of immense public debate. In the most recent November election, for example, there were no less that 50 local ballot measures in California addressing various regional issues. It should be noted that *local regional planning* involving two or more institutions is not necessarily the same as *statewide regional planning*, because the aims and purposes may be somewhat different. For certain, statewide regional planning must be guided by an interest to promote cost-effective institu-

tional arrangements that best maximize student choice and access at the regional level while also furthering broader statewide undergraduate goals and purposes. Such a planning process, naturally, must embrace an open and vibrant consultative forum to ensure that important regional issues and concerns of the California Community Colleges, the State University, the University of California, and the Independent sector are made explicit and addressed. After completion of the enrollment demand projections, staff will consult with all appropriate constituency groups to identify and clarify the key policy and planning issues related to regional enrollment demand planning that need to be addressed.

**Proposed methodology of the Study**

In a very general sense, California is often categorized according to six major topographical areas for various regional planning purposes: Northern California, Sacramento Valley Area, Central San Joaquin Valley, Coastal Areas, Southern California, and the Eastern Sierra Nevada Range Areas. In order to develop useful regional enrollment demand projections, the Commission felt that more discrimination by topographical area was needed. It should be noted, though, that no single regional typology or county clustering could possibly be used to address all relevant regional issues and concerns. Still, some regional schema must be selected and the one adopted in this study is not without justification.

*The 11 geographic planning regions*

As shown by Display 1 (handout), the state has been subdivided into eleven rather than six geographic regions. Because the geographic boundaries are the same as those used in the Commission's *Eligibility Study of Public High School Graduates*, it will be possible to relate and examine changes in regional college participation to changes in student academic preparation and college eligibility. Notice that in the southern area, Orange county and Los Angeles county are each defined as self-encompassing regions. For the past 40 years, the U. S. Census Bureau has also treated those two counties as separate metropolitan statistical areas when collecting annual socioeconomic data for its *Current Population Surveys* (CPS). CPS data indicate that the two counties have different socioeconomic compositions. For example, Los Angeles county, the nation's largest metropolitan area, is more ethnically diverse than Orange county, and it has a much more sizable foreign-born population. With respect to affluence, average personal income in Los Angeles county is about 22 percent lower than it is in Orange county.

As indicated on the regional map, the remaining southern California areas have been clustered together to form two additional regions: San Bernardino county, the area that is projected to experience the largest population growth, has been combined with neighboring Riverside county, and San Diego and Imperial counties have been combined to form the other southern region.

California's central valley has been subdivided into three primary regions. The most northern portion of the valley is referred to as the Sac-

ramento Valley Area. It consists of Yolo and Sacramento counties to the west, and Placer and El Dorado counties to the east. Just below the Sacramento Area is the region referred to as the Northern Central Valley. It includes San Joaquin, Stanislaus, Merced and Madera counties, as well as the Sierra Nevada mountain range located to the east in Alpine and Mono counties.

The remainder of the valley area is labeled the Southern Central Valley. It consists of five counties, with Fresno and Inyo counties bordering the northwest and northeast, respectively, and Kings and Kern counties to the west and south, while Tulare county sits in the center of the region. Over the past several decades, college eligibility and participation has been substantially higher in the Sacramento Area Region than it has been throughout the rest of the central valley. Thus, to treat the entire valley as one unifying region would be to mask important differences in socioeconomic makeup and college preparation that presently exists.

The central and southern costal areas have been subdivided into three regions. One area, called the San Francisco Bay Area Region, consists of the traditional nine Bay Area counties that are often treated as a unifying region by various planning agencies, such as the Bay Area Association of Governments (ABAG). In this region, Sonoma, Marin, San Francisco, and San Mateo counties are located on the west side of the San Francisco Bay, while Napa, Solano, Contra Costa, Alameda, and Santa Clara counties border the east side of the bay. Just below this region is the area referred to as the Central Coast. It includes Santa Cruz county to the northwest, Monterey county bordering the west and south, and San Benito county to the east. The remaining costal area is referred to as the South Coast. It includes San Luis Obispo, Santa Barbara, and Ventura counties.

Finally, the most northern portion of the state is referred to as the Northern Region. It stretches from Del Norte county in the northwest corner of the state, to Modoc county in the northeast corner, and down to Nevada and Mendocino counties in the southeast and southwest corners, respectively. Unlike the rest of the state, the Northern Region is not expected to experience a tidal wave of high school graduates over the next 10 years. In fact, the most recent projections released by the Department of Finance indicate that the number of public high school graduates in this region will actually decline by about 5 percent by year 2010. As soon as the 2000 U.S. Census data become available, staff will be able to reexamine its regional boundaries in light of updated demographic, economic, and transportation information. Appropriate boundary changes will be made for future studies if necessary.

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*Overview of the Commission's model for estimating UC and CSU regional enrollment demand*

The Commission's regional enrollment demand model, like its statewide projection model, can be characterized best as a *bottom-up* approach to modeling. With respect to four-year public universities, the bottom-up approach is based on the premise that the majority of undergraduate stu-

dents that will be enrolled in public institutions in year 2010 in various regions have not yet begun college.

Because most University of California undergraduates either graduate or leave permanently within seven years, the University's regional enrollments in year 2010 will consist of all continuing students who are projected to first begin matriculating in year 2003 or later as either first-time freshmen or transfer students. Because the California State University enrolls significant numbers of part-time students, many of whom are working adults, and because the majority of State University students usually graduate or leave permanently within eight years, its regional enrollments in 2010 will consist mainly of all continuing students who are projected to first begin matriculating in 2002 or later as either first-time freshmen or first-time transfer students.

After the UC and CSU first-time freshman and transfer headcounts are projected, the numbers will be used in a series of regional life tables to simulate the likely enrollment life span of freshman and transfer students from entry to final departure. The life tables will reflect the most current continuation, attrition, and graduation data available.

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*Estimating UC and CSU first-time freshmen and transfer students by region*

As a first step in the regional projection process, it will be necessary to derive and examine three specific types of freshman participation rates. One rate, called the *mean regional participation rate*, represents the proportion of public high school graduates from a particular region that enroll subsequently at any CSU or UC campus as a first-time freshman. Another rate, called the *within-region participation rate*, represents the percentage of first-time freshmen of a particular region that enroll at a CSU or UC campus located in the same region as their high school. The rate is sometimes referred to as a *place-bound* or *homebound* rate. The place-bound rate, though, does not necessarily mean that students live at home while enrolled in college. Rather, it has been used to signify the proportion of entering college students that tend to enroll at a CSU or UC campus within reasonable proximity of their home. The third rate tracked by the Commission is referred to as the *out-of-region* participation rate. It represents the proportion of public high school graduates that have historically enrolled at a CSU or UC campus in a region different from their high school location.

Display 2 illustrates the various regional freshman participation rates cited. The example shown reflects CSU regional participation for fall 1993 and fall 1999. In 1999, 9.4 percent of the public high school graduates from the Northern Region enrolled at a CSU campus immediately following graduation (mean regional participation rate). Of those students, 59.2 percent enrolled at a CSU campus located in the same region as their high school (within-region rate). The remaining students enrolled at a CSU campus located in various other regions (out-of region rate).

*DISPLAY 2* *Data Example: Freshmen Regional Participations Rates for the the California State University, 1993 & 1999*

| High School Region | | CSU Region Where the High School Graduates Enrolled | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean Rate | Northern CA | Sac. Area | SF Bay Area | Northern Central Valley | Southern Central Valley | Central Coast | South Coast | L.A. County | Orange County | San Bern/ Riverside | San Diego/ Imperial |
| ***Northern CA*** | | | | | | | | | | | | |
| 1993 | 6.0% | 61.5% | 7.7% | 11.3% | 0.8% | 1.7% | 0.0% | 10.3% | 2.3% | 0.4% | 0.0% | 4.0% |
| 1999 | 9.4% | 59.2% | 7.5% | 11.7% | 0.6% | 0.5% | 1.1% | 10.9% | 4.6% | 0.5% | 0.0% | 3.5% |
| ***Sacramento Area*** | | | | | | | | | | | | |
| 1993 | 7.1% | 18.1% | 51.0% | 7.2% | 0.5% | 2.0% | 0.0% | 10.6% | 4.2% | 0.7% | 0.1% | 5.6% |
| 1999 | 9.6% | 13.1% | 53.4% | 8.7% | 0.3% | 1.5% | 1.3% | 10.3% | 4.1% | 0.2% | 0.2% | 7.0% |
| ***SF Bay Area*** | | | | | | | | | | | | |
| 1993 | 8.5% | 14.6% | 7.5% | 52.0% | 1.1% | 3.8% | 0.0% | 12.4% | 4.2% | 0.2% | 0.1% | 4.3% |
| 1999 | 11.4% | 12.1% | 4.6% | 58.6% | 0.3% | 1.0% | 0.9% | 9.9% | 5.1% | 0.1% | 0.0% | 7.4% |
| ***N. Central Valley*** | | | | | | | | | | | | |
| 1993 | 6.2% | 11.1% | 4.8% | 10.5% | 35.2% | 18.7% | 0.0% | 13.6% | 3.2% | 0.9% | 0.0% | 1.9% |
| 1999 | 8.2% | 10.0% | 12.8% | 14.9% | 27.2% | 15.2% | 0.5% | 10.2% | 4.4% | 0.2% | 0.3% | 4.4% |
| ***So. Central Valley*** | | | | | | | | | | | | |
| 1993 | 7.5% | 3.5% | 0.6% | 3.0% | 0.8% | 73.1% | 0.0% | 10.9% | 3.9% | 0.7% | 0.1% | 3.5% |
| 1999 | 9.7% | 3.4% | 1.1% | 3.7% | 0.6% | 70.4% | 0.7% | 9.2% | 6.0% | 0.3% | 0.2% | 4.5% |
| ***Central Coast*** | | | | | | | | | | | | |
| 1993 | 7.9% | 16.2% | 4.9% | 26.9% | 5.8% | 15.3% | 0.0% | 18.7% | 4.0% | 0.3% | 0.0% | 8.0% |
| 1999 | 8.7% | 12.0% | 7.1% | 27.8% | 1.2% | 7.4% | 12.3% | 18.0% | 5.2% | 0.3% | 0.0% | 8.8% |
| ***South Coast*** | | | | | | | | | | | | |
| 1993 | 4.5% | 14.5% | 4.5% | 10.0% | 1.6% | 5.9% | 0.0% | 35.9% | 22.1% | 1.0% | 0.0% | 4.7% |
| 1999 | 6.9% | 9.0% | 1.1% | 10.6% | 0.5% | 4.0% | 0.9% | 34.6% | 24.7% | 0.6% | 0.0% | 13.9% |
| ***LA. County*** | | | | | | | | | | | | |
| 1993 | 8.5% | 2.6% | 0.4% | 3.7% | 0.1% | 1.9% | 0.0% | 3.2% | 69.3% | 9.6% | 0.7% | 8.4% |
| 1999 | 9.9% | 2.1% | 0.2% | 3.6% | 0.1% | 1.0% | 0.5% | 2.7% | 70.2% | 12.6% | 0.8% | 6.2% |

*DISPLAY 2 (continued)*

| High School Region | | CSU Region Where the High School Graduates Enrolled | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean Rate | Northern CA | Sac. Area | SF Bay Area | Northern Central Valley | Southern Central Valley | Central Coast | South Coast | L.A. County | Orange County | San Bern/ Riverside | San Diego/ Imperial |
| ***Orange County*** | | 9.4% | 0.7% | 4.7% | 0.3% | 1.8% | 0.0% | 6.9% | 30.1% | 35.1% | 0.2% | 10.8% |
| 1993 | 6.5% | 3.6% | 0.4% | 4.0% | 0.1% | 0.6% | 0.4% | 4.9% | 35.5% | 39.8% | 0.2% | 10.2% |
| 1999 | 9.4% | | | | | | | | | | | |
| ***San Bern/Riverside*** | | 2.7% | 0.7% | 2.7% | 0.2% | 1.9% | 0.0% | 3.9% | 22.1% | 11.8% | 44.2% | 9.8% |
| 1993 | 5.5% | 2.5% | 0.6% | 2.3% | 0.4% | 1.1% | 0.6% | 3.7% | 29.2% | 15.3% | 34.1% | 10.2% |
| 1999 | 7.7% | | | | | | | | | | | |
| ***San Diego/Imperial*** | | 9.3% | 1.0% | 5.3% | 0.4% | 1.0% | 0.0% | 9.4% | 10.1% | 2.1% | 0.7% | 60.6% |
| 1993 | 6.1% | 4.3% | 0.6% | 5.2% | 0.1% | 0.6% | 0.5% | 6.7% | 10.5% | 1.1% | 0.7% | 69.7% |
| 1999 | 10.4% | | | | | | | | | | | |
| ***State Total 1993*** | 7.4% | 10.0% | 5.5% | 16.0% | 2.1% | 8.4% | 0.0% | 9.0% | 27.8% | 6.9% | 3.6% | 10.6% |
| 1999 | 10.1% | 8.4% | 5.5% | 18.2% | 1.5% | 6.8% | 0.9% | 7.9% | 26.7% | 8.0% | 3.0% | 13.0% |

It is evident from the display that most public high school graduates tend to enroll at a CSU campus located in the same general area as their home. The 1999 within-region participation rates (read diagonally on Display 2) ranged from a high of approximately 70 percent for the Southern Central Valley, Los Angeles county, and San Diego/Imperial regions to a low of 12 percent for the Central Coast region.

If each of the three types of regional participate rates were held constant and applied to the Department of Finance's public high school graduate projections, then the enrollment of CSU first-time freshmen from public high schools would increase from 28,478 in 1999 to 36,254 by year 2010. As shown by Display 3, this would translate to a 27.3 percent increase in freshmen enrollment, which would be due solely to demographic growth.

To derive a Baseline Forecast, analytic judgments will need to be made concerning the rate of improvement in freshman participation that various regions can reasonably expect to experience over the projection period. This will be accomplished by correlating regional freshman participation with various cognitive, demographic, and socioeconomic explanatory measures. The presumed effects of targeted outreach programs will also be considered. The projected freshman participation rates by region will be applied to the Department of Finance's Public High School Graduate Projections to derive a Baseline Regional Forecast. As a final step, the regional projections of first-time freshman will be adjusted to include students from *private California high schools, out-state- high schools, and foreign secondary schools.* Such students typically account for about 16 percent of freshman enrollments at the CSU and about 19 of freshman enrollment at UC.

Although the examples cited in Displays 2 and 3 pertained to the California State University, the same type of analysis will be carried out for the University of California. It must be emphasized, though, that interpreting regional freshmen demand projections for the University of California is more complex because its mission, with respect to student access, is not as regionally-based as the mission for the State University. Furthermore, the use of historical participation rates as a proxy for student demand is somewhat problematic because several UC campuses (i.e., Berkeley, UCLA) for some time now have only been able to offer admission to about 35 percent of their freshman applicants because of capacity limitations.

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*Estimating community college enrollment and transfer demand by region*

Because most community college students attend an institution in the same region as their home, it is not necessary to calculate *within region* and *out-region* participation rates. Instead, staff intends to analyze regional community college enrollments by five primary age groups (18-19, 20-24, 25-29, 30-49, 50-59) and derive a mean regional participation rate for each age group. The rate represents the proportion of Californians of a particular region and age group that were enrolled at a community college during a given Fall Semester. Display 4 shows age-specific community participation by region for fall 1999.

*DISPLAY 3 Data Example: California State University First-Time Freshmen Enrollment Demand by Region, Fall 1999 to 2010 (Public High School Graduates Only)*

| Fall | Total | Northern California | Sacramento Area | SF Bay Area | N Central Valley | So. Central Valley | Central Coast | South Coast | LA County | Orange | San Bern/ Riverside | San Diego/ Imperial |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1999 | 28,478 | 2,328 | 1,531 | 4,815 | 435 | 2,015 | 255 | 2,191 | 7,875 | 2,321 | 960 | 3,753 |
| 2000 | 29,102 | 2,340 | 1,579 | 4,926 | 451 | 2,056 | 259 | 2,251 | 8,014 | 2,373 | 990 | 3,862 |
| 2001 | 29,696 | 2,390 | 1,612 | 5,018 | 464 | 2,075 | 264 | 2,305 | 8,159 | 2,447 | 1,030 | 3,930 |
| 2002 | 30,302 | 2,431 | 1,642 | 5,109 | 473 | 2,154 | 274 | 2,346 | 8,332 | 2,508 | 1,039 | 3,994 |
| 2003 | 31,189 | 2,479 | 1,693 | 5,221 | 479 | 2,196 | 280 | 2,410 | 8,649 | 2,594 | 1,094 | 4,095 |
| 2004 | 31,516 | 2,477 | 1,706 | 5,253 | 484 | 2,235 | 282 | 2,425 | 8,775 | 2,626 | 1,117 | 4,136 |
| 2005 | 32,076 | 2,484 | 1,728 | 5,305 | 486 | 2,232 | 286 | 2,453 | 9,032 | 2,706 | 1,151 | 4,213 |
| 2006 | 33,422 | 2,563 | 1,791 | 5,523 | 504 | 2,293 | 295 | 2,542 | 9,456 | 2,842 | 1,218 | 4,394 |
| 2007 | 34,305 | 2,614 | 1,846 | 5,632 | 516 | 2,341 | 304 | 2,612 | 9,731 | 2,932 | 1,252 | 4,525 |
| 2008 | 36,322 | 2,723 | 1,913 | 5,908 | 543 | 2,472 | 320 | 2,757 | 10,433 | 3,147 | 1,330 | 4,776 |
| 2009 | 36,275 | 2,681 | 1,919 | 5,851 | 538 | 2,491 | 319 | 2,745 | 10,501 | 3,173 | 1,316 | 4,741 |
| 2010 | 36,254 | 2,657 | 1,906 | 5,836 | 530 | 2,475 | 320 | 2,733 | 10,520 | 3,201 | 1,315 | 4,762 |
| **PCT Change** | 27.3% | 14.1% | 24.5% | 21.2% | 21.7% | 22.8% | 25.2% | 24.7% | 33.6% | 37.9% | 37.0% | 26.9% |
| **Actual Chang** | 7,776 | 329 | 375 | 1,021 | 95 | 460 | 64 | 542 | 2,645 | 881 | 355 | 1,009 |

**Note:** The example shown above is based on constant regional participation rates

*DISPLAY 4 Community College Participation by Region and Age Group -- Fall 1999*

| Region | Total | 19-18 | 20-24 | 25-29 | 30-49 | 50+ |
|---|---|---|---|---|---|---|
| Northern California | 8.3 | 39.0 | 15.0 | 7.2 | 4.6 | 5.3 |
| Sacramento Valley Area | 8.5 | 37.5 | 17.6 | 9.6 | 5.0 | 3.9 |
| San Francisco Bay Area | 8.4 | 38.1 | 19.5 | 9.9 | 4.6 | 6.8 |
| Northern Central Valley | 6.2 | 30.2 | 11.8 | 5.3 | 3.2 | 3.6 |
| Southern Central Valley | 6.7 | 30.8 | 13.2 | 6.1 | 3.7 | 2.7 |
| Central Coast | 9.2 | 35.1 | 16.6 | 9.2 | 5.5 | 8.1 |
| South Coast | 9.8 | 41.3 | 20.6 | 8.5 | 5.0 | 7.4 |
| Los Angeles County | 6.3 | 36.1 | 17.2 | 7.0 | 3.0 | 2.8 |
| Orange County | 10.7 | 48.7 | 27.9 | 11.6 | 5.2 | 9.0 |
| San Bernardino/Riverside | 5.7 | 27.9 | 12.3 | 5.6 | 3.1 | 2.2 |
| San Diego Imperial | 9.4 | 33.8 | 17.0 | 8.1 | 5.1 | 9.4 |

If the age-specific regional participation rates shown above were held constant and applied to the Department of Finance's regional population projections, total community college enrollment demand would increase from approximately 1.5 million in fall 1999 to 1.87 million by year 2010. As shown by Display 5, this would translate to a 23.7 percent increase in enrollment demand, which would be due solely to demographic growth.

To derive a Baseline Forecast, analytic judgments will need to be made concerning the rate of improvement in age-specific participation that various community college regions can reasonably expect to experience over the projection period. Factors that are expected to contribute to increased participation include: (1) a favorable California labor market for jobs in which the community colleges are a major provider of training and preparation; (2) a continuing shift in the State's economy from industrial jobs to service-oriented jobs that will require educational experience beyond high school; (3) the community college's expanded role in remedial education; and (4) strategic planning initiatives that are intended to improve student access, transfer readiness, certificate and licensure completion rates, basic skills acquisition, and welfare to work transition.

After the Commission's Baseline Community College Forecast is derived, it will then be possible to develop community college transfer demand by region for the California State University and the University of California. The California Master Plan for Higher Education explicitly regards the community college transfer function as an important facet of providing Californians with educational opportunities leading to the baccalaureate degree. The transfer function also embraces the concept of a second chance by providing a path to baccalaureate education for many students who may not have qualified for UC or CSU admission based on their high school performance. A regional analysis will help clarify which regions of the state appear to be most effective in promoting student transfer.

*DISPLAY 5 ---- Data Example: California Community College Enrollment Projections by Region, 1999 to 2010*
*(Example based on constant regional participation rates)*

| Year | Total | Northern California | Sacramento Area | SF Bay Area | N Central Valley | So. Central Valley | Central Coast | South Coast | LA County | Orange | San Bern/ Riverside | San Diego/ Imperial |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1999-00 | 1,520,138 | 52,558 | 85,685 | 342,512 | 51,137 | 72,538 | 37,349 | 80,211 | 357,159 | 174,939 | 100,193 | 165,857 |
| 2000-01 | 1,541,457 | 53,771 | 87,830 | 346,562 | 52,616 | 74,182 | 38,127 | 81,256 | 358,434 | 176,537 | 103,307 | 168,836 |
| 2001-02 | 1,567,043 | 55,135 | 90,095 | 352,575 | 54,180 | 76,087 | 39,059 | 82,746 | 359,232 | 178,325 | 107,025 | 172,584 |
| 2002-03 | 1,596,917 | 56,688 | 92,616 | 359,256 | 55,919 | 78,029 | 40,087 | 84,255 | 361,885 | 180,720 | 110,968 | 176,495 |
| 2003-04 | 1,623,256 | 57,917 | 94,940 | 365,074 | 57,448 | 79,663 | 41,082 | 85,524 | 364,376 | 182,725 | 114,789 | 179,719 |
| 2004-05 | 1,654,720 | 59,103 | 97,283 | 371,264 | 58,950 | 81,453 | 42,112 | 87,144 | 369,806 | 185,648 | 118,800 | 183,157 |
| 2005-06 | 1,678,568 | 59,935 | 99,086 | 375,835 | 60,152 | 82,705 | 42,947 | 88,244 | 373,382 | 188,147 | 122,063 | 186,073 |
| 2006-07 | 1,704,431 | 60,624 | 100,809 | 380,890 | 61,434 | 83,949 | 43,813 | 89,542 | 378,003 | 190,537 | 125,539 | 189,292 |
| 2007-08 | 1,736,271 | 61,356 | 102,712 | 386,508 | 62,783 | 85,419 | 44,649 | 91,019 | 385,283 | 193,895 | 129,504 | 193,142 |
| 2008-09 | 1,775,201 | 62,108 | 104,780 | 392,995 | 64,256 | 87,316 | 45,621 | 92,927 | 395,356 | 198,759 | 133,749 | 197,335 |
| 2009-10 | 1,832,442 | 62,815 | 107,254 | 400,888 | 66,217 | 90,342 | 47,018 | 95,276 | 414,408 | 206,597 | 138,779 | 202,847 |
| 2010-11 | 1,879,851 | 63,251 | 109,257 | 406,855 | 67,747 | 92,963 | 48,208 | 97,170 | 429,968 | 213,842 | 142,996 | 207,593 |
| **PCT Change** | 23.7% | 20.3% | 27.5% | 18.8% | 32.5% | 28.2% | 29.1% | 21.1% | 20.4% | 22.2% | 42.7% | 25.2% |
| **Actual Change** | 359,713 | 10,693 | 23,572 | 64,343 | 16,610 | 20,425 | 10,859 | 16,959 | 72,809 | 38,903 | 42,803 | 41,736 |

To estimate UC and CSU transfer demand, staff will first examine historical *within-region* and *out-region* transfer participation rates by age group. The *within-region* rate represents the proportion of community college students of a particular region and age group that transferred to a CSU or UC campus in the same region as their community college. The *out-region* rate represents the proportion of community college students of a particular region and age group that transferred to a CSU or UC campus in a region different from their community college.

To derive a Baseline Forecast, analytic judgments will be made concerning the rate of improvement in student transfer that various regions can reasonably expect to experience over the projection period. Those judgments will be based in part on recent trends in UC and CSU transfer enrollments and the anticipated effects of outreach programs that have been established in certain regions to improve transfer readiness. Once projected, the transfer rates will be applied to the Commission's baseline forecast of regional community college demand to obtain numerical headcount projections of UC and CSU first-time transfer students. As a final step, those numerical projections will be used in series of regional *life tables* to simulate the likely enrollment life span of UC and CSU community college transfers from entry to final departure.